

IN THE CLAIMS

Please cancel non-elected claims 1-16, 18-31, 41, and 47-52, without prejudice.
Please add the new claims 53 and 54. The following listing of claims replaces all prior listings.

1-16 (Canceled).

17. (Currently amended) A method for analyzing ~~determining~~ in a plurality of proteomic mixtures ~~the presence of active target members of a group of related proteins in each of said proteomic mixtures, said related proteins related in having a common functionality for conjugation at an active site,~~ said method comprising:

(a) combining each of said proteomic mixtures with at least one activity-based probe, wherein:

(a1) each mixture includes a group of related proteins, the group comprising active target members;

(a2) said probe(s) includes a functionality allowing conjugation of said probe to said target members,

whereby said probe(s) is conjugated to said target member comprising a reactive functionality specific for said active site when active, under conditions for conjugation of said probe(s) to said target members to form an adduct; and

(b) determining the presence of said target members conjugated with said probe adduct in each of said proteomic mixtures;

whereby the presence of said ~~target members conjugated to said probe(s) adduct~~ in said proteomic mixtures is indicative of the presence of active target members in said mixtures, wherein said related proteins include a common functionality for conjugation at an active site.

18-31. (Canceled)